

Paraquat Update

Colton Bond, Oregon Department of Agriculture

April 8, 2021



**OREGON
DEPARTMENT OF
AGRICULTURE**

Background

- First registered in 1964.
- Contact Herbicide & Desiccant
- All paraquat products are Restricted Use (RUPs).

RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS – **NOT TO BE USED BY UNCERTIFIED PERSONS WORKING UNDER THE SUPERVISION OF A CERTIFIED APPLICATOR.**

PULL HERE TO OPEN ►

PARAQUAT DICHLORIDE GROUP 22 HERBICIDE

 **Gramoxone[®] SL 3.0**

syngenta[®]



**OREGON
DEPARTMENT OF
AGRICULTURE**

Oregon Registrations

Name	EPA/State Reg. No.	Registrant Name
PARAZONE 3 SL HERBICIDE	5481-615	AMVAC CHEMICAL CORP
PURGATORY 3SL	91234-87	ATTICUS LLC
DREXEL QUIK-QUAT	19713-617	DREXEL CHEMICAL COMPANY
HELMQUAT 3SL	74530-48	HELM AGRO US, INC.
DEVOUR	89167-24-89391	INNVICTIS CROP CARE LLC
PARAQ	34704-1117	LOVELAND PRODUCTS INC / CROP PRODUCTION SVCS
FIRESTORM HERBICIDE	82557-1-400	MACDERMID AG SOLUTIONS INC
PARAZONE 3SL HERBICIDE	66222-130	MAKHTESHIM AGAN NORTH AMERICA
PARAZONE 3SL HERBICIDE	66222-130	MAKHTESHIM-AGAN NA DBA ADAMA
PARAQUAT 43.2% SL	85678-58	REDEAGLE INTERNATIONAL LLC
PARA-SHOT 3.0	83529-27	SHARDA USA LLC
BONEDRY	82557-1	SINON USA
SOLERA PARAQUAT CONC	82542-3	SOURCE DYNAMICS
CYCLONE SL 2.0 HERBICIDE	100-1431	SYNGENTA CROP PROTECTION, INC.
GRAMOXONE SL 2.0 HERBICIDE	100-1431	SYNGENTA CROP PROTECTION, INC.
GRAMOXONE SL 3.0	100-1652	SYNGENTA CROP PROTECTION, INC.
TIGRIS PARAQUAT 3SL	92647-12	TIGRIS LLC
WILLOWOOD PARAQUAT 3SL	87290-35	WILLOWOOD, LLC -USA-



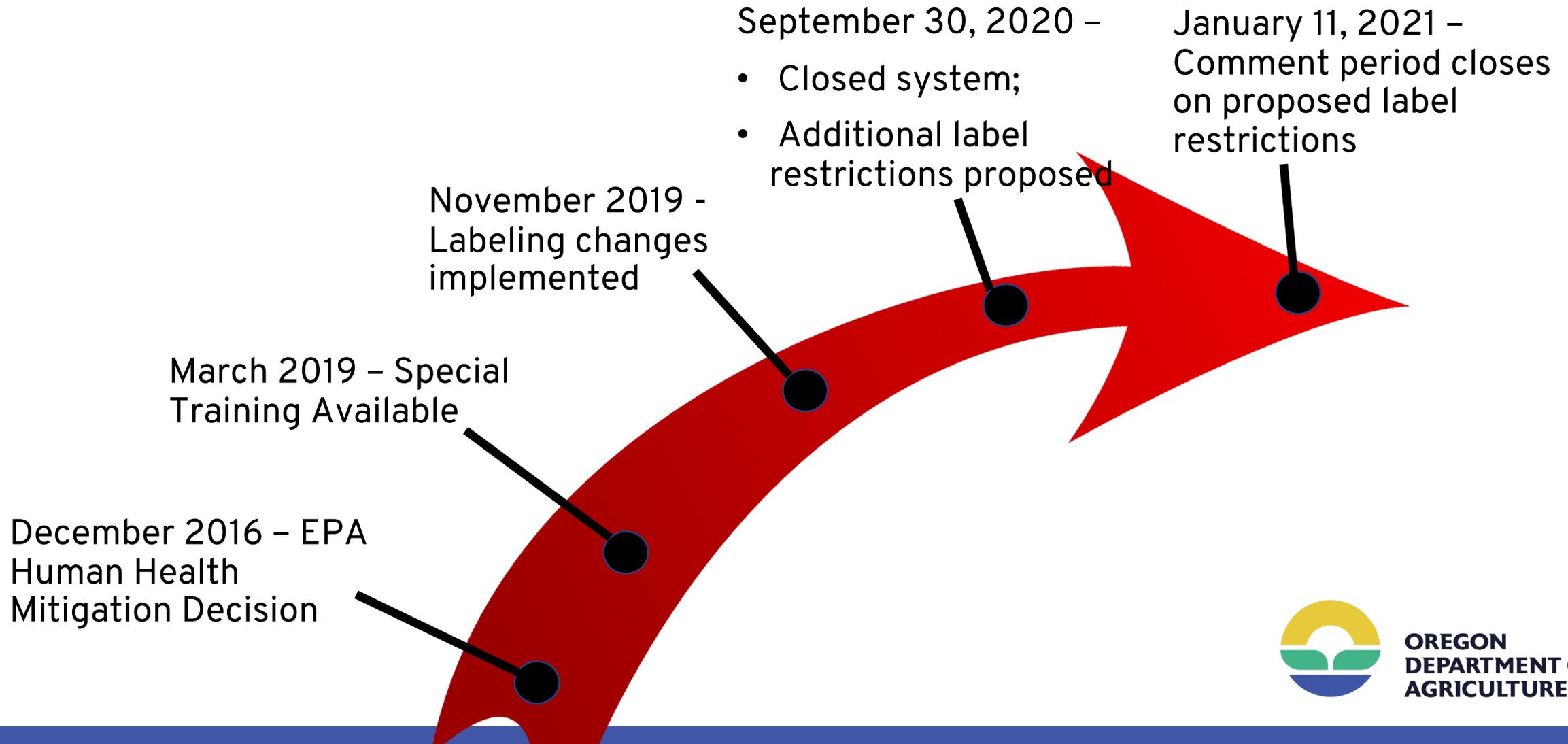
What is Prompting Changes?

More than 80% of paraquat fatality cases reported by registrants were due to ingestion of the product.

- In 2013, a 70-year-old female ingested some contents of a re-used iced tea bottle that contained paraquat,
- In 2010, a 44-year-old male mistakenly drank paraquat, which he thought was fruit juice.
- In 2008, an 8-year-old boy drank paraquat that had been put in a Dr. Pepper bottle.
- In 2003, a 49-year-old male took a sip from his coffee cup in which he had poured paraquat because the product's bottle was deteriorating.
- In 2000, a 15-month-old boy ingested paraquat that had been transferred into a Gatorade container
- In 2000, an 18-month-old boy ingested an unknown amount of paraquat solution from a bottle found in his father's landscaping truck.



Recent Regulatory History

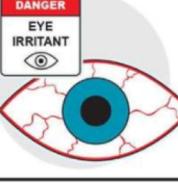


Label Changes

- Supplemental warning materials
 - Warning Box on back panel
 - Counter card
 - Warning sticker

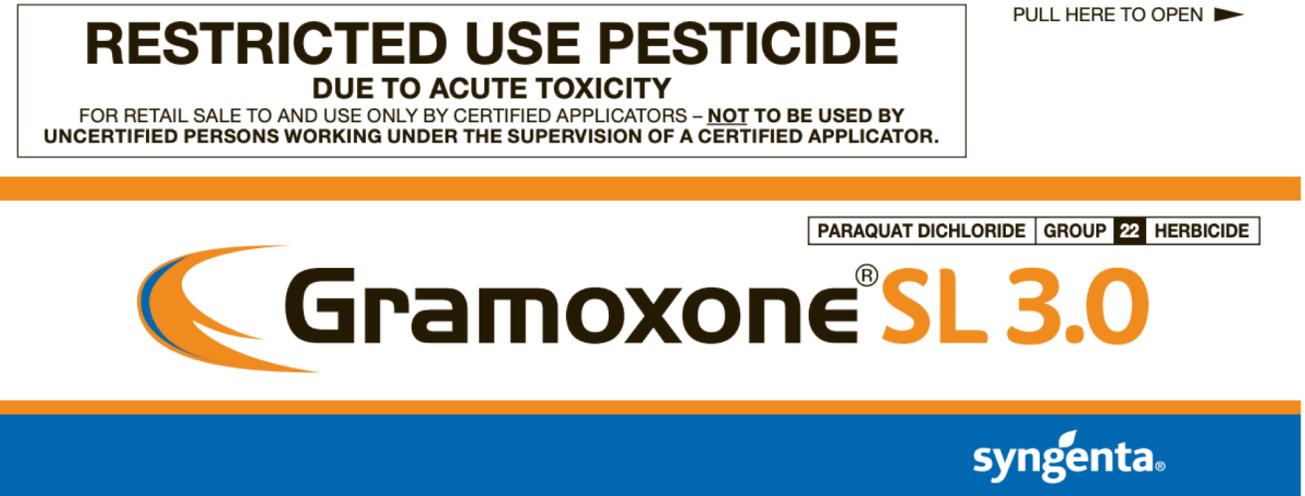


Product Package Safety Requirements

<p>NEVER TRANSFER THIS PRODUCT INTO FOOD OR BEVERAGE CONTAINERS OR CONTAINERS NOT EXPLICITLY INTENDED FOR PESTICIDES.</p>	<p>NUNCA TRANSFIERA ESTE PRODUCTO A RECIPIENTES PARA COMIDA O DE BEBIDAS O RECIPIENTES NO EXPLÍCITAMENTE PREVISTOS PARA PLAGUICIDAS</p>	
<p>ONE SIP CAN KILL.</p>	<p>UN SORBO PUEDE CAUSAR LA MUERTE.</p>	
<p>CONTACT WITH SKIN MAY RESULT IN POISONING.</p>	<p>EL CONTACTO CON LA PIEL PUEDE CAUSAR ENVENENAMIENTO.</p>	
<p>EXPOSURE TO EYES MAY CAUSE SUBSTANTIAL EYE INJURY.</p>	<p>EXPOSICIÓN A LOS OJOS PUEDE CAUSAR LESIONES SUSTANCIALES EN LOS OJOS.</p>	
<p>PARAQUAT SHOULD ALWAYS BE STORED TIGHTLY CLOSED IN ORIGINAL CONTAINER, AND IN A LOCKED PLACE AWAY FROM CHILDREN AND ANIMALS.</p>	<p>EL PARAQUAT DEBE ALMACENARSE SIEMPRE CERRADO EN SU RECIPIENTE ORIGINAL, Y EN UN LUGAR CERRADO, ALEJADO DE NIÑOS Y ANIMALES.</p>	
<p>READ ENTIRE LABEL PRIOR TO USING THIS PRODUCT.</p>	<p>LEA LA ETIQUETA COMPLETA ANTES DE USAR ESTE PRODUCTO.</p>	

Label Changes Cont'd

- Use limited to certified applicators only (no supervision)



- Training requirement

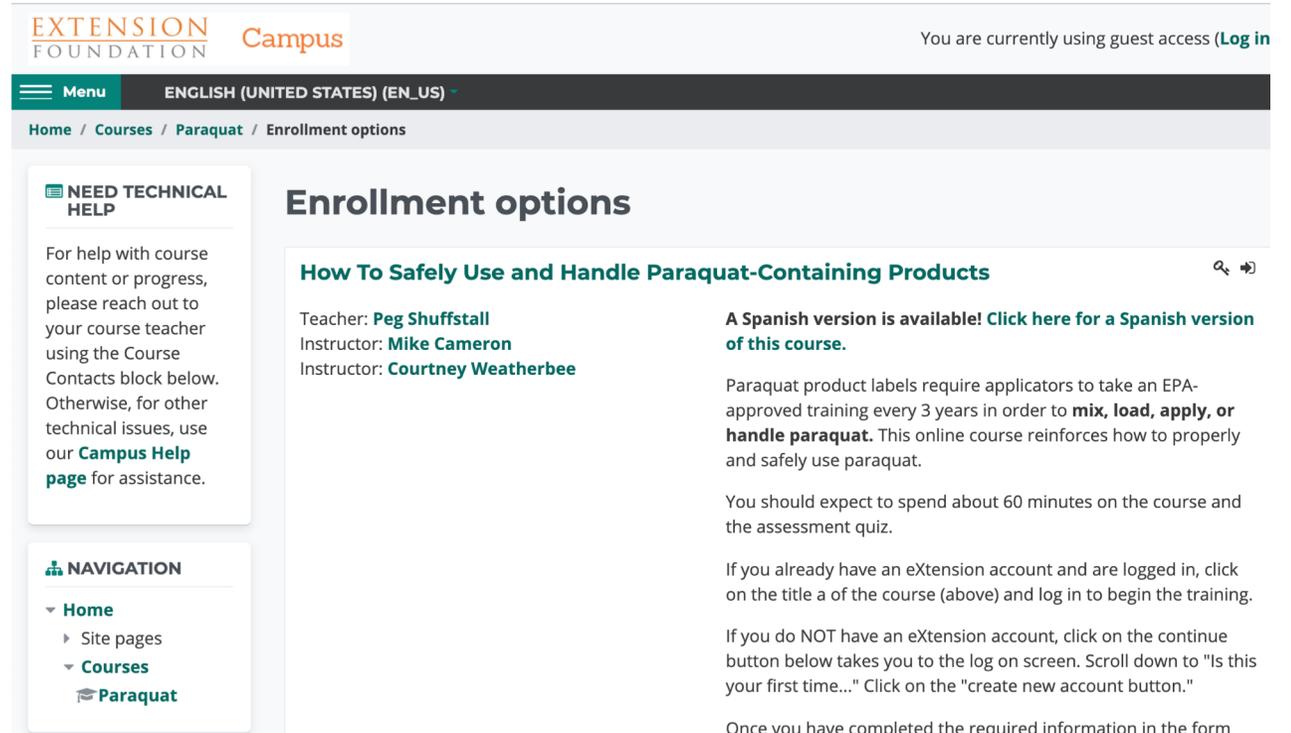
2.2.4 ADDITIONAL CERTIFIED APPLICATOR Paraquat Dichloride Training

Applicators must complete an EPA-approved paraquat training listed on the following Website: <https://www.epa.gov/pesticide-worker-safety/paraquat-dichloride-training-certified-applicators>. The training must be completed a minimum of every three years.

- Registrants may only distribute products with updated labels after Nov. 14, 2019.

Special Training

- Label-mandated
- Required every 3 years
- Focuses on:
 - Paraquat Concerns, Health Effects, & First Aid
 - PPE, Application, & Storage
 - Product Labels & Regulatory Changes



The screenshot shows the EXTENSION FOUNDATION Campus website. The header includes the logo and the text "You are currently using guest access (Log in)". The navigation bar shows "Menu" and "ENGLISH (UNITED STATES) (EN_US)". The breadcrumb trail is "Home / Courses / Paraquat / Enrollment options".

NEED TECHNICAL HELP

For help with course content or progress, please reach out to your course teacher using the Course Contacts block below. Otherwise, for other technical issues, use our [Campus Help page](#) for assistance.

NAVIGATION

- ▼ Home
 - Site pages
- ▼ Courses
 - Paraquat

Enrollment options

How To Safely Use and Handle Paraquat-Containing Products

Teacher: [Peg Shuffstall](#)
Instructor: [Mike Cameron](#)
Instructor: [Courtney Weatherbee](#)

A Spanish version is available! [Click here for a Spanish version of this course.](#)

Paraquat product labels require applicators to take an EPA-approved training every 3 years in order to **mix, load, apply, or handle paraquat**. This online course reinforces how to properly and safely use paraquat.

You should expect to spend about 60 minutes on the course and the assessment quiz.

If you already have an eXtension account and are logged in, click on the title a of the course (above) and log in to begin the training.

If you do NOT have an eXtension account, click on the continue button below takes you to the log on screen. Scroll down to "Is this your first time..." Click on the "create new account button."

Once you have completed the required information in the form

Special Training Cont'd

- Training accessible online here: USParaquatTraining.com
- ~60 minutes
- Final exam



**OREGON
DEPARTMENT OF
AGRICULTURE**

Closed-System

- Prevents spills, and placement of paraquat in inappropriate containers.
- Closed-system packaging for non-bulk containers (<120 gallons)
- Registrants only distribute with closed—system packaging after Sept. 30, 2020.
- Demo Video (Syngenta):
<https://youtu.be/duP0ThvnEAM>



Photo Credit: Stephen Meyers. 2020. <https://fff.hort.purdue.edu/article/a-look-at-one-of-the-new-closed-transfer-systems-for-paraquat-containing-herbicides/>



**OREGON
DEPARTMENT OF
AGRICULTURE**

Who Must Comply with New Requirements?

- Those using paraquat products with the updated labeling.
- “use” includes:
 - pre-application activities involving mixing and loading the pesticide;
 - applying the pesticide;
 - and other pesticide-related activities, including, but not limited to, transporting or storing opened pesticide containers, cleaning equipment, and disposing of excess pesticides, spray mix, equipment wash waters, pesticide containers, and other paraquat-containing materials.



Sale/Use of Existing Stock?

- Pesticide registrants can no longer distribute paraquat products with old-labeling or that don't meet closed-system requirements.
- Existing stocks of old-labeled products may be:
 - Sold by dealers until stock is exhausted, and
 - Used according to the label directions.



Additional Label Changes (Proposed)

EPA proposed mitigation measures include:

- Prohibiting aerial application for all uses (except cotton desiccation);
- Limiting the single application maximum rate for alfalfa to 1.0 lb active ingredient per acre;
- Requiring enclosed cabs for applications to more than 80 acres in a 24-hour period;
- Requiring PF10 respirators or enclosed cabs for applications to 80 acres or less in a 24-hour period;
- Prohibiting the use of mechanically pressurized handguns and backpack sprayers;
- Requiring a 48-hour Restricted Entry Interval for all crop uses (except for cotton desiccation); and
- Requiring mandatory spray drift management measures.



Additional Label Changes (Proposed)

EPA proposing:

- Add language that will allow truck drivers who are not certified applicators to transport containers of paraquat that have been opened, provided certain conditions are met.
- EPA is currently considering the following conditions:
 - Containers have resealable opening,
 - Opening must have tamper-evident device installed by a certified applicator (e.g. one-way valve),
 - No contact or access to paraquat,
 - Understands risks associated with paraquat.

Thank You!

Colton Bond

Oregon Department of Agriculture

cbond@oda.state.or.us

971-208-2549



OREGON
DEPARTMENT OF
AGRICULTURE